WORK SAFELY TODAY

EACH RULE VIOLATION IS A POTENTIAL ACCIDENT

TRAINMASTERS

P. F. PRENTISS ..... San Jose
L. W. BREINER ..... Sacramento
R. B. REDUS ..... Oroville
W. W. GEIL ..... Keddie

ASSISTANT TRAINMASTERS

R. A. CHRIST ..... Oakland-San Francisco
J. K. BRENNAN ..... San Jose
R. M. VERHAEGE ..... Stockton
J. H. BROWN ..... Stockton
A. E. STENE ..... South Sacramento

TERMINAL TRAINMASTERS

V. H. EDWARDS ..... Oakland-San Francisco
P. E. RUTHERFORD ..... Stockton

ROAD FOREMEN OF ENGINES

J. C. LUSAR ..... Stockton
N. F. ROBERTS ..... Oroville
J. C. CURRIER, JR. ..... Keddie

CHIEF TRAIN DISPATCHER

E. J. HILLIER ..... Sacramento

ASSISTANT CHIEF TRAIN DISPATCHER

G. L. HARLAN ..... Sacramento

NIGHT CHIEF TRAIN DISPATCHERS

R. W. HUFFMON ..... Sacramento
P. JOSSERAND ..... Sacramento

THE WESTERN PACIFIC RAILROAD CO.

WESTERN DIVISION TIMETABLE

48

EFFECTIVE SUNDAY, OCTOBER 28, 1962
AT 12:01 A. M.
PACIFIC STANDARD TIME

FOR THE GOVERNMENT AND INFORMATION OF EMPLOYES ONLY

H. C. MUNSON,
Vice-President and General Manager.

G. S. ALLEN,
Superintendent of Transportation.

L. D. MICHELSON,
Superintendent.

Eastward FIRST SUBDIVISION Westward

Timetable No. 48

October 28, 1962

FIRST CLASS 18 California Zephyr Leave Daily	Mile Post	STATIONS SIDING CAPACITIES AND FACILITIES	FIRST CLASS 17 California Zephyr Arrive Daily
AM 10.00	0.0	FO — Motor Coach — San Francisco	PM 4.00
10.25 AM	4.7	4.7 — Oakland Yard	3.30 PM
AM 10.35	4.7	Yd. Lmts. BKFTPO — TO-R **OAKLAND YARD**	PM s 3.20
	5.8	1.1 I — **SP Crossing**	
	5.9	0.1 I — **CHESTNUT JCT. (SP Conn.)** — Double Track	
s 10.45	6.6	0.7 — **OAKLAND**	s 3.10
	7.2	0.6 — **SP Crossing**	
	7.7	Yd. Lmts. 0.5 IP — **CLINTON (SP X'ing.)**	
	9.6	1.9 — **FRUITVALE**	
	10.6	1.0 IP — **MELROSE (SP X'ing.)**	
	11.3	68 0.7 P — **KOHLER**	
	13.7	2.4 IP — **ELMHURST (SP X'ing.)**	
	14.8	1.1 P — **SAN LEANDRO**	
	20.1	147 5.3 P — **HAYWARD**	
s 11.22	29.7	76 9.6 P — **FREMONT**	s 2.30
	30.3	0.6 IP — **NILES TOWER (SP X'ing.)**	
	30.5	0.2 YP — **NILES JUNCTION**	
	38.1	87 7.6 P — **HEARST**	
AM 11.38	41.5	3.4 P — **PLEASANTON**	2.10
	42.7	1.2 AIP — **RADUM (SP X'ing.)**	
	42.97	0.27 AI — **RADUM (SP X'ing.)**	
	47.0	80 4.03 P — **LIVERMORE**	
	56.2	110 9.2 P — **ALTAMONT**	
	63.3	109 7.1 P — **MIDWAY**	
	72.8	216 9.5 YP — **CARBONA**	
	74.05	1.25 AI — **SP Crossing**	
	82.1	111 8.05 P — **WYCHE**	
	84.45	2.35 I — **SP Crossing**	
PM 12.33	92.0	Yard 7.55 BKFTPO — TO-R **STOCKTON YARD**	
	93.2	1.2 IP — **AT&SF Crossing**	
s 12.37 PM	93.8	0.6 IP — **STOCKTON (SP X'ing.)**	1.10 PM
Arrive Daily		Traffic Control System	Leave Daily
18			17

Eastward SECOND SUBDIVISION Westward

Timetable No. 48

October 28, 1962

Traffic Control System

FIRST CLASS 18 California Zephyr Leave Daily	Mile Post	STATIONS SIDING CAPACITIES AND FACILITIES	FIRST CLASS 17 California Zephyr Arrive Daily
	92.0	Yard BKFTPO TO-R **STOCKTON YARD**	
	93.2	1.2 IP **AT&SF Crossing**	
PM 12.40	93.8	0.6 IP **STOCKTON (SP X'ing.)**	PM s 1.07
	94.3	52 0.5 P **FLORA STREET**	1.04
	95.1	0.8 IP **EL PINAL (SP X'ing.)**	
	97.9	117 2.8 P **HAMMER LANE**	
17 12.52	104.6	70 6.7 P **KINGDON**	12.52 18
	105.5	0.9 YP **TERMINOUS JUNCTION**	
	113.9	71 8.4 P **THORNTON**	
	121.9	128 8.0 P **PHILLIPS**	
	132.4	96 10.5 P **POLLOCK**	
1.24	136.5	Yard 4.1 KFPO TO-R **SOUTH SACRAMENTO**	
	137.5	1.0 IP **"X" ST. (CCT and SN X'ing.)**	
	138.0	0.5 IYP **"R" ST. (SP Crossing)**	
s 1.35	138.6	0.6 KP **SACRAMENTO**	s 12.10 PM
	139.5	0.9 P **HAGGIN (SN Conns.)**	
	140.7	1.2 P **GLOBE (SN Conn.)**	
	143.6	122 2.9 P **DEL PASO**	11.58 AM
	152.5	8.9 P **SANKEY (SN X'ing & Conn.)**	
	156.5	125 4.0 P **PLEASANT GROVE**	
	161.5	76 5.0 P **TROWBRIDGE**	
	172.5	73 11.0 P **EAST ARBOGA**	
	175.63	3.13 P **SN CONNECTION**	
s 2.18	178.8	101 3.17 P **MARYSVILLE**	s 11.24
	180.2	1.4 IP **BINNEY JCT. (SP X'ing.)**	
	186.0	72 5.8 P **TAMBO**	
	193.0	125 7.0 P **CRAIG**	
	202.9	Yard 9.9 BKFTYPO TO-R **OROVILLE YARD**	
s 2.43 PM	205.1	94 2.2 BKP **OROVILLE**	10.55 AM
Arrive Daily			Leave Daily
18			17

Sacramento Northern trains and engines will be governed by Western Pacific timetable and operating rules.

At South Sacramento and Sacramento, engine whistle or horn should be used only when necessary and then kept as soft as possible consistent with the particular requirement.

Eastward THIRD SUBDIVISION Westward

Timetable No. 48

October 28, 1962

FIRST CLASS 18 California Zephyr Leave Daily	Mile Post	STATIONS SIDING CAPACITIES AND FACILITIES			FIRST CLASS 17 California Zephyr Arrive Daily
	202.9	Yard TO-R	OROVILLE YARD	BKFTYPO	
PM 2.50	205.1 209.1	94	2.2 OROVILLE	BKP	AM s 10.45
VIA	213.9	127	4.8 KRAMM	P	VIA
NEW	220.0	129	6.1 ELSEY	P	NEW
LINE	226.0	132	6.0 JAMES	P	LINE
●	209.3	84	4.2 QUARTZ	P	●
VIA	212.9	88	3.6 BIDWELL	P	VIA
OLD	217.6	83	4.7 BLOOMER	P	OLD
LINE	224.1	90	6.5 BERRY CREEK	P	LINE
●	231.2	93	7.1 DAVID	P	●
	234.9	141	OL 3.7 NL 8.9 POE	P	
	239.5	122	4.6 PULGA	P	
	243.5	79	4.0 CRESTA	P	
	247.6	73	4.1 MERLIN	P	
	253.1	55	5.5 TOBIN	P	
	255.3	83	2.2 CAMP RODGERS	P	
	260.1	94	4.8 BELDEN	P	
	264.6	73	4.5 RICH BAR	P	
	270.2	75	5.6 VIRGILIA	P	
	273.7	85	3.5 TWAIN	P	
	277.3	84	3.6 PAXTON	P	
s 5.10	281.5	Yard TO-R	4.2 KEDDIE	KFTP	s 8.20
	284.5	84	3.0 SIERRA	P	
	287.9	76	3.4 QUINCY JUNCTION	P	
	292.6	83	4.7 MASSACK	P	
	296.4	92	3.8 SPRING GARDEN	P	
	301.6	85	5.2 SLOAT	P	
	305.4	85	3.8 TWO RIVERS	P	
	310.4	98	5.0 BLAIRSDEN	P	
	318.7	82	8.3 MABIE	P	
s 6.20 PM	321.4	Yard TO-R	2.7 PORTOLA	BKFYPO	7.10 AM
Arrive Daily					Leave Daily
18					17

Traffic Control System

Distance between Oroville Yard and Portola via old line, 118.5 miles.

Distance between Oroville Yard and Portola via new line, 114.5 miles.

Eastward FOURTH SUBDIVISION Westward

Timetable No. 48

October 28, 1962

SECOND CLASS		Mile Post	STATIONS SIDING CAPACITIES AND FACILITIES	SECOND CLASS	
156	154			153	155
Leave Daily	Leave Daily			Arrive Daily	Arrive Daily
PM 2.00	AM 10.00	0.0	Yd. Lmts. BKFTP TO-R **KEDDIE**	PM 1.30	PM 8.20
2.16	10.19	6.2	86 6.2 P **MOCCASIN**	1.13	8.04
2.19	10.23	8.6	13 2.4 P **CRESCENT MILLS**	1.09	8.00
2.28	10.32	14.7	86 6.1 P TO **GREENVILLE**	1.00	7.51
2.51	11.07	25.4	86 10.7 WYP **ALMANOR**	12.34	7.25
3.07	11.24	32.4	86 7.0 P **LASSEN VIEW**	12.17	7.08
3.14	11.31	35.2	2.8 P **CLEAR CREEK JCT.**	12.10	7.01
3.23	11.41	39.4	Yd. Lmts. 4.2 KYP TO **WESTWOOD** (Joint Track)	12.01 PM	6.52
3.31	11.50	43.5	4.1 P **MASON** (Joint Track)	11.52 AM	6.44
3.32	AM 153 **11.51**	44.1	86 0.6 **ROBBERS CREEK**	**11.51** 154	6.43
3.43	PM 12.07	52.5	86 8.4 P **NORVELL**	11.40	6.32
3.57	12.21	62.9	86 10.4 P **LODGEPOLE**	11.26	6.18
4.15	12.39	76.4	86 13.5 YP **HALLS FLAT**	11.08	6.00
4.33	12.58	84.2	86 7.8 P **JELLICO**	10.42	5.34
4.47	1.13	90.2	86 6.0 P **WILLOW SPRINGS**	10.22	5.14
155 **4.57**	1.24	94.8	86 4.6 P **LITTLE VALLEY**	10.05	**4.57** 156
5.11	1.39	100.9	86 6.1 P **DIXIE**	9.50	4.40
5.31	2.00	109.5	86 8.6 P **PIT RIVER**	9.25	4.15
5.35 PM	2.05 PM	111.8	Yd. Lmts. 2.3 BKYP TO-R **BIEBER**	9.20 AM	4.10 PM
Arrive Daily	Arrive Daily			Leave Daily	Leave Daily
156	154			153	155

In Bieber Yard trains will be governed by Great Northern timetable and transportation rules. Rule 93, Great Northern Transportation Rules, reads as follows:

"Within yard limits the main track may be used, clearing first-class trains when due to leave the last station where time is shown. In case of failure to clear the main track, protection must be given as prescribed by Rule 99.

"Within yard limits the main track may be used without protecting against second and inferior class, extra trains and engines.

"Within yard limits second and inferior class, extra trains and engines must move at restricted speed.

"Within yard limits when running against the current of traffic or on a portion of double or three or more tracks used as single track, all trains and engines must move at restricted speed."

Definition of "Restricted Speed" in Great Northern Transportation Rules is:

"Proceed prepared to stop short of train, obstruction or anything that may require the speed of a train to be reduced."

FIRST SUBDIVISION "A"— SAN JOSE BRANCH

Eastward **Westward**

Timetable No. 48

October 28, 1962

Distance from Niles Junction	Traffic Control System	STATIONS — SIDING CAPACITIES AND FACILITIES	
		76 FREMONT	P
		0.8	YP
0.0		NILES JUNCTION	
		Spur 1 E 3.3	P
3.3		12 IRVINGTON	
		Spur 1 E 3.5	P
6.8		10 WARM SPRINGS	
		Spur 1 E 1.2	P
8.0		18 CURTNER	
		E 71 3.5	YP
11.5		W 77 MILPITAS	
		Spur 1 E 2.6	P
14.1		10 BERRYESSA	
		Yard 3.4	BKFTPO
17.5		TO-R SAN JOSE YARD	
		2.1	
19.6		VALBRICK (SP X'ing.)	
		0.8	I
20.4		WILLOW GLENN (SP X'ing.)	
		1.9	
22.3		WEST SAN JOSE (SP X'ing.)	
		Yard 0.7	
23.0		SAN JOSE FREIGHT STATION	

Yard Limits

FIRST SUBDIVISION "B"— CARBONA BRANCH

Eastward **Westward**

Timetable No. 48

October 28, 1962

Distance from Carbona	STATIONS — SIDING CAPACITIES AND FACILITIES	
	216	YP
0.0	CARBONA	
	1.7	PO
1.7	63 KERLINGER	
	Spur 1 W 0.22	
1.92	18 TEEKAY	
	0.08	
2.0	END OF BRANCH	

RULE 201. Train order authority is not required on Carbona Branch and all movements on branch must be made at yard speed.

SECOND SUBDIVISION "A"— TERMINOUS BRANCH

Eastward **Westward**

Timetable No. 48

October 28, 1962

Distance from Terminous Jct.	STATIONS — SIDING CAPACITIES AND FACILITIES	
	31	YP
0.0	TERMINOUS JCT.	
	3 6.6	
6.6	GRASS	
	Yard 1.2	
7.8	TERMINOUS	

RULE 201. Train order authority is not required on Terminous Branch and all movements on branch must be made at yard speed.

Special Instructions

ALL SUBDIVISIONS

All times as shown for trains at Stations on schedule pages are Pacific Standard Time. Trains will continue to operate on Pacific Standard Time during period that Daylight Saving Time is in effect.

GENERAL RULE M. Add. Employes are prohibited from riding or walking on the roof of any moving car.

RULE 10-J. Between Chestnut Junction and Oroville, yellow round speed-control boards indicate the maximum permissible speed of passenger trains except as noted at bottom of page 29. Elsewhere, passenger trains will be governed by the higher number speeds indicated on white oval speed-control boards.

Between Chestnut Jct. and Oroville, the higher number on white oval speed-control board indicates the maximum permissible speed for Special Freight Trains under column 2 and the lower number indicates the maximum permissible speed for Other Freight Trains under column 3. Where but one number is shown, it indicates the maximum permissible speed for both Special and Other Freight Trains.

RULE S-17. Figures indicating "Car Capacity of Sidings" are number of cars, based on average allowance of 48 feet per car, that tracks will hold between clearance points, plus 250 feet for engine and caboose.

Outside of T.C.S. territory care must be taken to see that flag protection is furnished ahead when taking siding to meet trains unless it is definitely known that train is clear of the main track. After train comes to rest in the siding, the head end must receive a stop signal from the rear end indicating that train is clear of the main track. Until such signal has been received by head end, headlight will be displayed and flag protection provided. This does not in any way relieve the approaching train from complying with provisions of Rule S-90.

RULE 82-A. Trains in T.C.S. territory which change engines at intermediate stations need not obtain a new clearance. Thereafter any clearances issued will indicate the latest engine number. Train dispatcher must be notified promptly of change in engines.

First-class trains must obtain clearance at Oroville Yard and will not require a clearance at Oroville.

RULE 92. First-class trains must respect schedule shown.

RULE 101-A. Freight trains designated by the Superintendent may operate at speeds shown under column 2, Special Freight Trains, pages 28 and 29 when they receive the following message:

"This is your authority to operate at speeds shown under column 2, Special Freight Trains, current timetable between ..... and ....."
(Station) (Station)

.....
Superintendent

Freight trains that do not have this written authority, or when this authority is cancelled, will operate at speeds shown under column 3, Other Freight Trains.

RULE 101-B. When tracks are covered by water and it is known they are safe for movement, engines may be operated over them only if the water is below the traction motor frames, not exceeding 5 MPH.

RULE 105. On First Subdivision, except Carbona, on Second Subdivision and at Oroville and Keddie, sidings between clearance points are not included in signal circuits.

RULE 110. Freight trains need not stop for train inspection if train is operating normally, except westward trains on Third Subdivision requiring use of retainers must stop for inspection at Belden unless train has been inspected at Keddie, in which case, they may run from Keddie to Bloomer via Old Line or Keddie to Elsey via New Line for inspection.

If stops for train inspection are contemplated and if practicable to do so, train dispatcher should be notified in advance of any such stops.

When weather conditions restrict visibility, the conductor will designate any stops or additional stops for inspection that in his judgment, are necessary.

RULE 204. Train orders may be issued to first-class trains at Portola and Oroville Yard which affect their movements on both Second and Third Subdivisions.

Incoming crews on first-class trains, when crew change is made at Oroville, must deliver train orders, clearance and instructions to outgoing crew.

Oroville Yard train-order mast equipped with three hoops installed on the north side of the main track in front of telegraph office; top hoop for enginemen, middle hoop for conductor, and lower hoop for rear brakeman.

RULE 509. When a train becomes disabled in a block between stations, and the conductor or engineer has given train dispatcher assurance it is unable to proceed, the train dispatcher may, after an understanding has been reached with the conductor or engineer of the disabled train, orally authorize another train in opposing direction to enter the block under flag protection to relieve the disabled train. When a train is reported disabled to the train dispatcher, it must thereafter not be moved in either direction until relief train has arrived, or unless otherwise instructed by the train dispatcher.

RULE 540. Traffic Control System extends from Clinton to Portola and from absolute signals located just west of tail of wye switch at Niles Junction to west yard limit San Jose, MP BR-15.25.

On First, Second and Third Subdivisions, including First Subdivision "A"—San Jose Branch, trains will be authorized by clearance at terminals. Trains originating at intermediate stations will be authorized orally by train dispatcher, except at a station where an operator is on duty.

Conductor, or engineer if there is no conductor, of a train authorized orally, must ascertain from the train dispatcher what instructions are outstanding as to track conditions on that portion of the system over which movement is to be made.

Trains on First and Second Subdivisions which are operated through Stockton and Stockton Yard with the same conductor may be issued Form Y train orders affecting their movement on either or both Subdivisions and may assume corresponding schedules or run extra from Stockton or Stockton Yard without obtaining clearance. When engine crews are changed at Stockton or Stockton Yard, incoming engineer must deliver clearance, train orders and instructions to outgoing engineer.

RULE 547. When a train is standing or switching in a block at a station, train dispatcher may authorize another train to flag into the block to perform work. Crew of train so authorized must have an understanding with crew of train occupying the block before entering and must fully protect their movements against any movements by the train originally occupying the block.

The granting of work authority does not relieve trains or engines from complying with the indications of any interlocking signals within the working limits. Any movements within the interlocking limits or to enter the interlocking limits must be made in accordance with interlocking rules, except when a train or yard engine, after entering the limits as prescribed by such rules, finds it necessary to temporarily leave a portion of their train or switch cut within the interlocking limits and permit their engine to leave the interlocking limits in the process of completing a switch movement, they may, after stopping, pass the interlocking signal governing entrance to the interlocking limits in stop position to again couple to their train or switch cut. In such cases if the crossing involved has been left clear, no movement must be made to foul or cross same without first protecting against movement on conflicting route.

RULE 550. The areas in which authority will be granted to use switches within work limits when work time is obtained are between:

East switch Kohler and west switch Stockton Yard (MP 90).

East switch Flora St. and west switch Oroville Yard, except electrically-locked switches between switches of sidings and North Channel line switch.

San Jose Branch, Niles Jct. and MP BR-15.25.

When a train or engine is to clear the main track at an electrically-locked switch, after it has entered the block in which the switch is located, the train dispatcher must hold all signals governing movement into that block at STOP and apply red tags to the levers controlling such signals. When movement is clear of main track and switch again normal, crew member will then report to train dispatcher that train or engine is clear. Until crew member so reports train dispatcher must not remove red tags from levers controlling the signals involved.

RULE 550-A. Trains and engines must not clear the main track at hand-operated switches not equipped with electric locks in territory where maximum speed is greater than 20 MPH.

RULE 825. Modified to extent that diesel engines not exceeding two units, may be used behind 400 and 600 series cabooses.

RULE 826. When necessary to handle a car ahead of the engine between stations, it must be chained to engine unless air brakes are cut in and operative.

RULE 831. When steam shovels, cranes, pile drivers, ditchers, spreaders or similar equipment are handled in trains, other than work trains in service, they must be placed on rear, unless otherwise directed. If picked up at a point where they cannot be placed on rear, they may be placed on head end and switched to rear at first station where possible to do so.

RULE 1011. When engine is not detached from train on No. 17 or No. 18 at Oroville, or on No. 17 at Portola, it will not be necessary for outgoing enginemen to check supplies and equipment.

FIRST SUBDIVISION

Nos. 17 and 18 receive and discharge passengers to and from San Francisco at Middle Harbor Road, Oakland Yard.

No. 18 must obtain clearance at Oakland Yard.

No. 18 will stop on advance notice or on flag at Pleasanton for revenue passengers destined Salt Lake City or beyond, and will stop at Pleasanton Monday to Friday inclusive to discharge baggage.

No. 17 will stop at Pleasanton to discharge revenue passengers from Salt Lake City or beyond.

Switches of certain tracks are not electrically-locked or signalled. Except in emergency a train must not clear main track on such tracks. If necessary to clear, permission must be obtained from the train dispatcher before again entering main track and provisions of Rule 520 will apply.

Switching may be done at these switches without work authority provided part of train is left at all times on main track within the block being used. Train dispatcher should be advised when such switching is to be done between stations.

RULE D-71. Trains have no timetable superiority between Clinton and Chestnut Jct.

Yard engines must obtain information as to when first-class trains are due and avoid delaying them and give way promptly to other trains.

RULES 83-A and 83-B. First-class trains need not register at Stockton Yard.

Oakland.

(a) **RULE D-151.** Before trains are authorized to move against the current of traffic between Clinton and Chestnut Jct. train dispatcher must first contact yardmaster Oakland Yard advising him of such impending train movement. After yardmaster has informed train dispatcher yard engines have been notified and track to be used will be clear, train movement against the current of traffic will be authorized as follows:

Westward: By signal indication per Rule 292-A at absolute signal Clinton.

Eastward: By train order form reading "No._____ use westward main track Chestnut Jct. to Clinton."

(b) Yard engines must move with current of traffic when practicable, using crossovers to move to other track to perform work. Yardmaster may authorize long moves against the current of traffic after obtaining information that opposing trains or yard engines will not be encountered. If impracticable to contact yardmaster and it is necessary to make a long move against the current of traffic, engine

foreman may arrange such move after obtaining similar information. Short moves against the current of traffic may be made at any time except when first-class trains are due or when informed by yardmaster a train will move against the current of traffic.

(c) Street Crossing at Third and Broadway must not be blocked.

A westward train finding an eastward passenger train at passenger station will not pass Franklin St. until eastward train leaves station.

(d) Train and engine movements over street crossing at Broadway Street, will be governed by vehicular traffic signals.

Eastward and westward trains and engines must approach Broadway Street expecting to find signals at STOP.

Trains and engines may proceed without stopping at Broadway Street on green traffic signal.

Lunar white light is located on near right-hand traffic light masts. When lighted, it indicates track circuit control is effective.

Eastward trains and engines, if stopped or delayed between Washington and Broadway Streets, and Westward trains and engines, if stopped or delayed between Webster and Broadway Streets, in excess of one minute and find traffic signals displaying red, must stop within ten (10) feet of curb line of Broadway Street and wait for green traffic signal. Should traffic signal fail to display green and lunar white marker is not lighted, flag protection over street crossing must be provided. Occupancy of the intersection by a train or engine will cause signals governing vehicular traffic to display red.

After having crossed Broadway Street, trains or engines must clear the circuits as soon as possible.

(e) Joint WP and SP drill track between Melrose and Elmhurst must not be used for meeting or passing trains. Crossover between drill track and west end of Elmhurst siding must not be used by road crews. Normal position at west end of crossover, lined for drill track and at east end, lined for crossover.

(f) 66th and Seminary Avenue Crossings must be cut when blocked more than five minutes.

San Leandro. Absolute signal governing movement from siding to main track, lock 430-C, will display aspect per Rule 288 when main track switch is in reverse position and will continue to display aspect per Rule 288 for movement from siding as long as main track switch is in reverse position.

When signal displays aspect per Rule 288, trains and engines may proceed at restricted speed prepared to stop until the next signal in advance can be determined.

Hayward.

(a) Freight trains doing switching will leave train outside of limits of bonded rails operating crossing bells at "A," "B" and "C" Streets and will use engine whistle or horn and bell only when necessary to prevent accident.

(b) Trainmen must not ride cars beyond a point 548 feet from point of switch on Hayward Building Material Company spur. Sign has been placed at this point, reading: "STOP: Trainmen must not operate beyond this point."

(c) A lunar white marker light on 7-foot mast is located to the right of the siding at MP 20.15. Eastward trains moving on siding finding this lunar white marker light illuminated may proceed to east siding switch and be governed by signal indication displayed there. Eastward trains finding this marker light extinguished must stop before passing it and contact train dispatcher for instructions.

Train dispatcher's telephones are located in booth adjacent to marker light mast and in baggage room.

Decoto. Eastward trains setting out, picking up or doing other work stop clear of and west of the "F" Street grade crossing (No. 4-26.4), leaving sufficient room for cars picked up and engine west of that crossing.

Pabrico. Spur serving American Forge Co. east connected.

Switch is electrically-locked and is protected by hand-throw derail. Derail is not electrically-locked and must remain in derailing position until release of electrically-locked switch is obtained. Derail actuates signals on main track when not in derailing position.

Instructions for operation of electrically-locked switch and derail posted in telephone booth.

Engines will not operate beyond a point 15 feet inside of industry's gate.

Fremont. Look out for heavy movement of gravel trucks using Shinn Road crossing over main track, siding and back track 800 feet west of Station. Engineers must prolong horn or whistle signal 14 (1) approaching and passing over this crossing on any of the above named tracks.

Train dispatcher's telephone located in baggage room.

Niles Tower. RULE 670. Reverse movements may be made within interlocking limits without obtaining permission from the towerman provided a portion of the train or engine is between interlocking home signals.

Rhodes and Jamieson Spur. Switch is electrically-locked and is protected by hand-throw derail. Derail is not electrically-locked and must remain in derailing position until release of electric locked switch is obtained. Derail actuates signals on main track when not in derailing position.

Trevarno. Drill track. Switch is electrically-locked and is protected by hand throw derail. Derail is not electrically-locked and must remain in derailing position until release of electrically-locked switch is obtained. Derail actuates signals on main track when not in derailing position.

Altamont. Water cars spotted on house track are connected with underground water line. They must not be moved except on special instructions.

Carbona.

(a) Engines must move with extreme care not exceeding 3 MPH while moving over frogs and switches and around curves on Tomato Spurs.

(b) Main track and inside crossover switches at east end are dual-control. When either switch is placed in hand-throw position the other switch is disconnected from power operation and it is then unnecessary to place it in hand-throw position.

Signals governing movement over inside dual-control switch are controlled by train dispatcher. When signals display aspect per Rule 288, movements may be made to or from SP interchange and engines may drill over this switch without placing it in hand-throw position. If signals display STOP aspect per Rule 292 and reason is not apparent or if call light is lighted on adjacent telephone booth, train dispatcher must be contacted promptly.

Carbona siding is included in signal circuits and must not be fouled or occupied unless authorized by an absolute signal indication or by permission of the train dispatcher.

San Joaquin River Bridge. Train dispatcher's telephone located in booth on north side of track east end of bridge.

Army Supply Depot (Lathrop).

(a) At west end, normal position of all switches in switching lead lined for switching lead. Do not exceed 10 MPH on switching lead or interchange trackage with Army Supply Depot.

(b) Tracks 2 and 3 are to be used for setting out and picking up cars.

Stockton Yard.

(a) Eastward trains, caboose hops and light engines will be governed by signal indication entering Stockton Yard.

Eastward trains which head in at MP 90, call yardmaster on phone located near absolute signal for track instructions.

Eastward trains which head in at MP 90.85, call yardmaster on talk-back speaker for track instructions.

(b) Unless instructed by yardmaster, No. 3 lead will not be used for train movements.

(c) Switch leading to Tidewater Southern main track just west of Bridge 90.4, normal position lined for entering and leaving No. 1 lead.

Diverging switch between No. 1 and No. 2 leads at east end of Bridge 90.4, normal position toward No. 2 lead and trains entering No. 1 lead at this point must be sure switch lined back to normal position.

FIRST SUBDIVISION "A" — SAN JOSE BRANCH

Electric locks applied to main track switches and associated derails at the following locations:

Irvington.....MP BR-3.35
Inland Steel.....MP BR-4.68 and 5.02
Warm Springs.....MP BR-6.75
Curtner.....MP BR-7.95

These locks cannot be released by train dispatcher to enter main track. Therefore trains and engines must not clear main track at these locations unless specifically instructed to do so by train dispatcher. Rules 520 and 547 will apply at all switches between Niles Junction and MP BR-15.25 not protected by absolute signals or electrically-locked.

Niles Junction.

(a) Absolute signals governing eastward movements on branch, located at clearance point of switch at tail of wye.

(b) Switch at tail of wye is a spring switch, normal position lined for movements toward east leg of wye. This switch is equipped with electric switch indicator displaying yellow light when switch is in normal position. If yellow indicator lamp is found not illuminated by a westward train or engine, it must stop and examine spring switch at tail of wye before passing over it to make sure that point is fully closed.

Crews switching over this spring switch must stop and examine switch points if yellow indicator lamp is not illuminated after trailing movement is completed. This inspection must be made regardless of direction of movement to be made after using switch. Rule 519 applies.

(c) A lunar white marker light on 11 foot mast is located at MP BR-0.8 just east of Morrison Canyon Road governing movement of westward trains to the east leg of the wye.

Such trains finding lunar white marker light illuminated may proceed; those finding marker light extinguished must stop before passing and contact train dispatcher for instructions, unless train consists of less than forty cars including caboose, it may pass marker light without stopping and pull ahead to next absolute signal, making sure Morrison Canyon Road crossing is open and clear for vehicular traffic.

Movement on either east or west leg of wye must be made at yard speed.

Milpitas.

(a) Track adjoining south side of main track west of office is known as "West Siding" and track adjoining south side of main track east of office is known as "East Siding."

(b) Absolute signals installed at crossovers, MP BR-11.65, just east of office building.

(c) Derail on west leg of wye located at clearance point. Derail on east leg of wye located 392 feet west of main track switch.

RULES 341 and 509 (B). When instructed by the train dispatcher to line crossover switches to enter west or east siding, both switches to crossover to be used must be lined before any portion of train or engine passes absolute signal and thereafter, to enter siding only, trains may pass absolute signal displaying aspect per Rule 292.

(c) Crossover movement from either east or west siding to main track may be made by signal indication after train dispatcher has authorized lining of crossover switches by display of illuminated "S" indicator per Rule 292-A.

Dwarf signals located adjacent to crossover govern crossover movements to main track only and do not apply to siding movements. Except when in use for movement through crossover these signals will be dark.

(d) Trains setting out, picking up or doing other work will contact train dispatcher for instructions when ready to depart.

(e) At the Ford plant there are electrically-locked derails on Tracks F-1 and F-2, located 200 feet west of the west track entrance and 227 feet east of the east track entrance to the assembly building. The doors to the track entrances at each end of the building cannot be closed until the derails are lined in derailing position and locked. Unless requested by the Ford Motor Co. cars must not be left on either track at either end of the building between the derails and point of entrance to the building.

In addition, at the west end, not more than two cars may be left (while switching or otherwise) on either Tracks F-1 or F-2 between the diverging switch to these tracks and the derails. If Ford Co. orders two cars left on either Tracks F-1 or F-2 as above the east car must be left as close to derail as safety permits to allow clearance on west end of these cars.

Hayes type derails installed on Track F-4, 388 feet east of west switch to Track F-3 and on Track F-5, 238 feet east of entrance switch.

Gates, doors to buildings and derails on both east and west ends of Ford plant are controlled and operated by Ford security police.

San Jose Yard.

Westward absolute signal located opposite west yard limit sign, MP BR-15.25.

After obtaining clearance, westward trains must contact train dispatcher by telephone before leaving yard tracks at William Street for authority to proceed to absolute signal at MP BR-15.25.

SECOND SUBDIVISION

RULES 83-A and 83-B. First-class trains need not register at Oroville Yard.

South Sacramento is register station for Sacramento Northern trains originating and terminating only.

Sacramento Northern trains need not register at Stockton Yard.

Stockton Yard.

Charter Way. Westward signal is a two-unit signal and diverging route may be to either "B" lead or Diner Siding.

When either of the dual-control switches in this block is placed in hand-throw position the other switch is disconnected from power operation and it is not necessary to place it in hand-throw position when switching over it unless it is used.

Stockton.

North Channel Line. Governed by absolute signals and electric lock. Eastward signal is a two-unit signal with "S" unit. When the "S" unit is illuminated electric lock is released and must be unlocked before switch is changed by hand operation.

Engines and cars must be brought to a stop at Country Club Highway crossing and must be preceded by flagman over crossing.

Bridge over Smith Canal will not clear man on top of car.

Terminous Junction. Two derails at each end, on siding and leg of wye, pipe-connected in tandem with east and west siding switches. Switches from siding to each leg of wye, Terminous Branch, operate independently from derails.

South Sacramento.

(a) Campbell Soup Co. track. West crossover switches both electrically-locked. After lock is released main track switch must be opened before inside switch can be opened and inside switch must be closed before main track switch can be closed.

(b) Two dual-control switches at east end. Easterly switch connects with No. 1 track on north side and westerly switch connects with yard tracks on south side of main track. Power-operated switch point derail in No. 1 track connected with dual-control switch but operates separately when either switch or derail is in hand-throw position. When either dual-control switch or power derail is placed in hand-throw position the other switch and derail are disconnected from power operation and it is not necessary to place other switch in hand-throw position when switching over it unless it is used.

Westward absolute signal at east end is a two-unit signal with two marker lights on bracket which, when signal indication is per Rule 287, will show whether switch to north or south side is open.

(c) Both switches of crossover from main track to No. 1 track at west end of train yard electrically-locked. After lock is released, main track switch must be opened before inside switch can be opened and inside switch must be closed before main track switch can be closed.

Sacramento.

(a) **RULE 509.** Train dispatcher may issue Form B covering blocks Globe to east end South Sacramento, inclusive, in either direction.

(b) Normal position of switch at tail of wye "R Street Line" is lined for west leg of wye.

(c) Lunar white marker displayed in connection with aspect per Rule 287 on westward absolute signal at east switch Haggin, indicates that switches are lined for movement to Sacramento Northern yard.

When aspect per Rule 287 is displayed without display of lunar white marker it indicates switches are lined to siding.

Marysville.

(a) Main track switch of crossover west of depot and east No. 1 track switch are bolt-locked by electric lock 346 B.

Inside crossover switch on siding and hand-throw tandem derails on east end of tracks 1 and 2 are not electrically-locked and must NOT be operated before obtaining electric lock 346 B.

(b) SN connection switch on siding must be locked for siding when not in use. All movements on siding must be made at yard speed.

THIRD SUBDIVISION

Sidings are included in signal circuits except Oroville and Keddie. No siding may be occupied or fouled unless authorized by an absolute signal indication or by permission of the train dispatcher.

The following will govern use of retainers on westward freight trains Portola to Bloomer via Old Line and Portola to Oroville Yard via New Line:

Retainers will not be used on westward freight trains, unless in the judgment of the engineer, their use is necessary. If retainers are necessary, a sufficient number will be used to control the speed of train while brake pipe pressure is being restored.

If, in the judgment of engineer, the number of retainers is unsatisfactory, stop must be made and retainers turned up in accordance with his instructions.

When retainers are used, they will be applied to cars on head end in a block of not less than 15 cars. Retainers are to be used in low pressure position, which is horizontal. Should wheels show a tendency to heat retainers must be alternated.

RULE 10-J. Blue rectangular speed control boards indicate the maximum permissible speed of Special Freight Trains and will be displayed on the same post below the white oval speed control board.

RULES 83-A and 83-B. Keddie is register station for trains originating and terminating only.

Nos. 17 and 18 register by ticket at Portola.

Oroville.

(a) West switch is governed by absolute signals with "S" unit. When "S" unit is illuminated, electric lock is released and must be unlocked before switch is changed by hand, after which signal will show indication for movement.

When switching is to be done at this location, after electric lock is released, moves may be made at restricted speed within the limits specified by the train dispatcher without regard to signal indications except that main track block east of west siding switch may not be entered without signal indication unless working on train, or cars occupying the block.

(b) A sign reading "Diesel Stop" painted on a yellow marker post located between main track and siding 804 feet east of east end passenger station building.

Engineers of eastward diesel powered passenger trains should endeavor to stop with cab of engine opposite this post so that water tanks of engine can be filled without respotting.

Engineers of westward diesel powered passenger trains should endeavor to stop just to clear of westward leaving signal at west end of siding.

Land. Engines heavier than two-unit diesels must not use tracks 2, 3 and 4 except portions at west end on tangent track.

Two-unit diesels and smaller engines may use all tracks and may use east lead as far as derail and sign reading "WPRR engines must not go beyond this point" located 125 feet east of extreme east switch of interchange tracks with the Feather River Railway Co.

No. 1 track, which is a crossover from siding, and No. 2 track used as a runaround track, must be left clear. All classes of engines may use siding entire length.

Camp Rodgers. West connected switch to tracks serving PG&E Co. located in siding 1472 feet east of west siding switch. Hayes derail on lead track 200 feet east of connecting switch. Unless some portion of train is left on siding, derail must be set in derailing position while engine is on PG&E tracks and thereafter siding must not be entered without permission of train dispatcher. Cars must not be left on grade on lead track between connecting switch and switchback 550 feet from east end of lead track.

Grays Flat Spur, MP 272.6. Cars must not be left at top of hill or on descending grade on this spur.

Keddie.

(a) When calling in flagman from east on Fourth Subdivision enginemen will sound six long blasts of horn.

(b) All switches leading in or out of siding (No. 1 track), except inside switch to Upper Crossover, must be left lined for the siding. Derailing switch at west end of siding is dual-control, power-operated and when in power position works simultaneously with west siding switch. When west siding switch is in hand-operated position, derailing switch must also be hand-operated.

(c) Both switches of west crossover between No. 1 track and Fourth Subdivision lead are included in circuits of eastward absolute entering signal west end Keddie siding. These switches must be left lined for No. 1 track and Fourth Subdivision lead respectively when not in use.

(d) Movements of trains or engines between yard tracks and tail track east of upper crossover may be made by, first obtaining release of electric lock on switch from roundhouse lead to tail track from the train dispatcher. After obtaining release of electric lock and reversing switch, then line inside switch of upper crossover to tail track. Movements must not be made west of roundhouse lead switch or on tail track east of eastward dwarf absolute signal at inside switch of upper crossover until this is done. Signal will display aspect per Rule 287 for eastward movement to tail track.

Hayes derail on tail track, pipe-connected to inside switch to upper crossover.

After this lineup is made, roundhouse lead switch must not be lined back until engine or cars are clear of section of tail track between dwarf signal and derail.

(e) Main track switch and derail at east end of house track is not pipe-connected.

Separate switch stand and electric lock 106A installed on this derail. The switch stand and electric lock is located 25 feet from track on south side of derail. Electric locks 106 and 106A can be unlocked by train dispatcher when either door of electric locks is opened.

(f) Emergency water facilities for supplying water for steam heat units on passenger diesels located adjacent to telephone booth just east of telegraph office.

Quincy Junction. East house track switch operates pipe-connected derails on east end house track and east end interchange track simultaneously.

FOURTH SUBDIVISION

Markers must be burning through Tunnels 1, 2, 3 and 6.

RULE S-72. WESTWARD TRAINS ARE SUPERIOR TO EASTWARD TRAINS OF THE SAME CLASS.

RULE 827. Permasco car skates at Moccasin, Greenville, Lassen View, Robbers Creek, Lodge Pole, Jellico, Willow Springs and Little Valley.

When setting cars out on any of these sidings see they are used.

If cars already on siding, arrange to couple cars to be set out with the cars already there, resetting skates under outside pair of wheels of truck of first car on the down hill side. When coupling into car or cars on siding make coupling carefully and see skates removed before cars are pulled or pushed.

When all cars are removed from siding crew making pickup will see skates are re-hung on post or pole in place provided.

In addition to the use of Permasco car skates, provisions of second paragraph Rule 827 pertaining to use of hand brakes are also applicable.

Retainers need not be used on freight trains being handled by locomotives with dynamic brake operative, except when tonnage of trains exceeds the following:

Almanor to Greenville. One retainer for each 50 tons in excess of 1050 tons per unit.

Halls Flat to Little Valley. One retainer for each 50 tons in excess of 1175 tons per unit.

In the event one or more units become inoperative, or in the judgment of the engineer, more retainers are needed, stop must be made and trainmen must turn up retainers in accordance with his instructions.

When handled by locomotive with dynamic brake inoperative, trainmen will turn up one retainer for each 90 tons in train.

On westward trains between Dixie and Little Valley, Norvell and Almanor, Moccasin and Keddie, and on eastward trains between Dixie and Pit River, retainers will not be used unless in the judgment of engineer their use is necessary to assist in controlling speed of train while brake pipe pressure is being restored.

When retainers are used, they will be applied to cars on head end in a block of not less than 15 cars. Retainers are to be used in low pressure position which is horizontal. Should wheels show a tendency to heat, retainers must be alternated.

Keddie. When calling in flagmen from east on Fourth Subdivision enginemen will sound six long blasts of horn.

Normal position of switch leading from east leg of wye to Fourth Subdivision, lined for east leg of wye. Single switch indicator located at this switch.

Serviceable portion of west leg of wye ends 584 feet west of east wye switch (109 feet east of Bridge 280.61) and bumper in place at that location.

Box. Engines or cars must not be moved over road crossing on Box Spur just east of Greenville without being brought to a stop and road traffic flagged in both directions by a member of crew.

Clear Creek Junction. The 33-car siding is the interchange track with Almanor Railroad Company and trackage between Western Pacific main track switch and yard limit board 2000 feet beyond end of the 33-car siding toward Chester is joint track for interchange purposes. Movements over this trackage are under operating rules governing operations within yard limits. Switch point derail on Almanor RR main track 400 feet from junction switch.

Normal position junction switch lined for Western Pacific main track.

Westwood. No. 4 track and old electric siding connected with No. 4 track at west end will be used as siding.

Derails on west end old electric siding and house track must be kept in derail position except when being used. East switch of old electric siding must be left lined for siding.

Poison Lake. Switch point derail at clearance point west end of log loading track. This derail must be left in derailing position except when track is actually being switched.

Jellico. Log loading track capacity 40 cars connected both ends leads off south side of siding.

Switch point derail on east end of this track and there must be no failure to leave it in derailing position except when track is actually being switched.

AUTOMATIC BLOCK SIGNALS

Keddie. Fourth Subdivision:

Eastward two position signal at west portal Tunnel 1 and westward two position signal 60 feet east of east wye switch are not equipped with number plates. When aspect per Rule 292 is displayed by either of these signals Rule 509 (A), will not apply and it will not be necessary to contact the train dispatcher. Rule 509(B) will govern. Train or engine will proceed under flag protection to block system limit sign.

Three position signal 45 feet east of Tunnel 2.

Overlap for westward signal east end of Tunnel 1 extends 528 feet west of signal at west portal Tunnel 1. Signal east end of Tunnel 1 is actuated by both switches of first crossover west of Tunnel 1.

Eastward two-position signal at west portal Tunnel 1 is approach lighted. When train enters approach circuit 480 feet in advance of signal it will be lighted and when inside switch "A" crossover is in reverse position signal will be lighted.

INTERLOCKING PLANTS AND SIGNALS AND RAILROAD CROSSINGS NOT INTERLOCKED

At certain Interlocking Crossings aspects per Rules 281 through 292 will be supplemented by semaphore arms as follows:

RULE 281. A single semaphore arm 60 degrees below horizontal position.
NAME. CLEAR.
INDICATION. PROCEED.

RULE 292. A single square-ended red semaphore arm in horizontal position.
NAME. STOP.
INDICATION. STOP.

MP 5.8—SP Crossing and MP 5.9—Chestnut Junction, Magnolia Tower. Interlocking. Towerman on duty.

Eastward: Two-unit home signal 490 feet west of Crossing. Upper unit governs movement to eastward main track; lower unit to westward main track. Single unit dwarf signal 490 feet west of Crossing governs movement from No. 1 track to either eastward or westward main track.

Westward: Three-unit home signal on westward main track 700 feet east of Crossing; upper unit governs movement to SP; middle unit to WP yard; lower unit to OT Interchange. Color-light dwarf signal 490 feet east of Crossing governs movement from eastward main track to WP yard or SP.

Eastward whistle signals: Old yard to eastward main track—one long; to westward main track—one long, one short and one long. No. 1 track, old yard, to eastward main track—one short and one long; to westward main track—one short, one long and one short.

MP 7.2 SP Crossing. Both Main Tracks. No Interlocking.

Protected by manually-operated gates. When SP engines or cars are using SP track, gates will be across both WP tracks and indicate STOP to movements on WP in either direction. Trains must approach under control and not proceed over this Crossing unless it is known to be clear.

MP 7.7 Clinton, SP Crossing. Interlocking. Remote-Controlled.

Spring switch located 60 feet west of Crossing at end of double track normally lined for westward main track and may be trailed through eastward on eastward main track.

Home signal east of Crossing is a two-unit signal with "S" unit on mast. Upper unit governs movement over Crossing to westward main track; lower unit to eastward main track after spring switch has been lined. The "S" unit must be illuminated before spring switch is changed. Trains or engines moving from eastward main track to

westward main track or vice versa must move beyond home signal and receive proper signal indication for reverse movement. If authorized to pass this signal in STOP position, in addition to observing Rule 663, spring switch must be examined and points found to fit properly for movement desired.

That part of paragraph (D) Rule 663, referring to waiting time, is modified to three minutes instead of ten minutes at this Crossing.

MP 10.6 and MP 10.7 Melrose, SP Crossings. Interlocking. Remote-Controlled.

MP 13.7 Elmhurst, SP Crossing. Interlocking. Remote-Controlled.

RULE 509 also applies. That part of paragraph (D) Rule 663, referring to waiting time, is modified to five minutes instead of ten minutes at this Crossing.

MP 30.3 Niles Tower, SP Crossing. Interlocking. Towerman on duty.

MP 42.7 and MP 42.97 Radum, SP Crossings. Interlocking. Automatic.

That part of paragraph (D) Rule 663, referring to waiting time, is modified to five minutes instead of ten minutes at this Crossing.

In order to avoid delay to trains on opposing route while doing work at Radum, train must be left outside of interlocking plant circuit governed by home signals.

MP 74.05, SP Crossing. Interlocking. Automatic.

While doing work on tracks adjoining this Crossing, train or cars must be left outside of interlocking plant circuit governed by home signals in order to avoid delay to trains on opposing route.

Signals are approach clearing. If train or engine fails to reach home signal within eleven minutes after proceed aspect is displayed, train or engine must expect to find STOP aspect displayed. Secondary clearing circuits extending 500 feet in approach to home signals, must be occupied before signal may again display proceed aspect.

MP 84.45 SP Crossing. Interlocking. Remote-Controlled. Under Control SP Operator.

When westward home interlocking signal displays STOP aspect, westward trains will stop to clear Lathrop highway crossing.

When switching is done on main track at West Lathrop or crossover west end of Army Supply Depot track, signal operator in SP Depot Lathrop must be notified by telephone length of time to be used so signal lineup may be changed if necessary and must also be notified when switching is completed. Telephones located near signal case on east side of Lathrop highway crossing and in T. C. S. booths West Lathrop and crossover west end Army Supply Depot track. Telephone for eastward movement is in box attached to eastward home signal west side of SP Crossing.

MP 90.5 Ortega, Hunter Street Line, SP Crossing. Interlocking. Remote-Controlled.

Movements over SP Crossing will be made in accordance with signal indication.

Westward interlocking signal is also absolute signal. **RULE 509** also applies.

Electric locks on WP main track switch to Hunter Street Line and derail located north side SP Crossing are under control of WP train dispatcher. Both switch and derail are equipped with spring device for trailing movements.

Instructions for handling movements over SP Crossing posted in telephone shelters adjacent to both switch and derail.

MP 93.2 AT&SF Tower, AT&SF Crossing. Interlocking. Towerman on duty.

RULE 509 also applies. Limits of AT&SF Stockton Tower No. 2 have been extended to include that portion of main track and siding on the AT&SF to Commerce Street and signal indications will supersede the superiority of trains for both opposing and following movements on the same track. The movement of trains and engines in these limits will be supervised by the Tower who will issue instruc-

tions as may be required. The Tower must be advised in advance of any known condition that will delay the train or engine or prevent it from making usual speed.

Speed limit between Stockton Tower and Commerce Street — 20 MPH.

Following fixed signals and indications are effective in above specified territory:

Red — Stop and communicate with Tower for instructions.

Flashing Red — Proceed prepared to stop short of train, obstruction or switch not properly lined but not exceeding 20 MPH.

Red over Yellow — Same as Flashing Red.

Telephones to AT&SF Tower located in booth at Hazelton Avenue Lead and Commerce Street.

Western Pacific train dispatchers' telephone located in booth at Hazelton Avenue Lead.

Absolute signal governing movement from Hazelton Avenue Lead may display aspect per Rules 288 or 292 for movement to Western Pacific main track at MP 93.2. When aspect per Rule 288 is displayed, proceed to next governing signal.

Signal governing movement from Commerce Street to AT&SF main track or siding may display aspect per Rules 288 or 292. When aspect per Rule 288 is displayed, this authorizes movement to AT&SF main track and siding. When aspect per Rule 292 is displayed, crew must contact tower for instructions.

Next governing signal on AT&SF main track and siding will authorize movement to Western Pacific main track. If aspect per Rule 292 is displayed, authority for movement may be obtained through towerman.

Dwarf signals at Center Street govern movement from AT&SF main track and siding to Commerce Street.

Following whistle signals will be observed:

From WP to AT&SF enroute Hazelton Avenue Lead.3 shorts, 1 long.
From WP to AT&SF enroute Commerce Street....1 long, 1 short.
From AT&SF to WP main track and WP main track either direction .....1 long.

MP 93.8 Weber Avenue, SP Crossing. Interlocking. Remote-Controlled.

RULE 509 also applies. That part of paragraph (D) of Rule 663, referring to waiting time, is modified to five minutes instead of ten minutes at this Crossing.

MP 95.1 El Pinal, SP Crossing. Interlocking. Remote-Controlled.

Under control of SP train dispatcher. SP telephone and instructions located in box adjacent to the Crossing. When interlocking signals display STOP indication and reason is not apparent, contact SP train dispatcher and thereafter be governed by Rule 663.

MP 137.5 "X" Street, CCT and SN Crossing. Interlocking. Remote-Controlled.

Dwarf signals with "S" indicators on Sacramento Valley Tractor Co. spur and west end interchange track. For movement out of spur or interchange track, first contact train dispatcher, then when "S" is illuminated line switch and signal should clear for movement.

RULE 509 also applies. That part of paragraph (D) of Rule 663, referring to waiting time, is modified to three minutes instead of ten minutes at this Crossing.

MP 138.0 "R" Street, SP Crossing. Interlocking. Remote-Controlled.

RULE 509 also applies. Low dwarf absolute signal bearing letter "A" located 80 feet east of "S" Street on west leg of wye governs movement from west leg of wye to main track only and does not apply to movements to California Builders Supply spur. When switch is lined for movement to California Builders Supply spur, this signal will be dark.

Interlocking Home signals located 75 feet west and 200 feet east of SP Crossing west leg of wye govern movements over SP Crossing only. When these signals display aspect per Rule 288, movement may be made over SP Crossing at yard speed. If aspect per Rule 288 is not displayed, paragraph (D) Rule 663 will apply and waiting time modified to three minutes.

Switches leading to California Builders Supply spur and CAL-PAK 15 spur are manually operated. These switches will be lined and locked normally for through movements on west leg of wye. Movements into and out of these spurs can be made without contacting train dispatcher.

Rule 670 is modified at this location to permit reverse movements to be made within interlocking limits provided a portion of switch cut or engine is between interlocking home signals.

That part of paragraph (D) Rule 663, referring to waiting time, is modified to three minutes instead of ten minutes at this Crossing. **RULE 509** also applies.

MP 152.5 Sankey, SN Crossing and Connection.

RULES 509 and 546 apply. Westward absolute signal is a two-unit signal. Upper unit governs movements on WP main track. Lower unit governs movements to SN main track.

MP 180.2 Binney Junction Tower, SP Crossing. Interlocking. Towerman on duty.

SAN JOSE BRANCH

MP 19.6 Valbrick, SP Crossing. No interlocking.

MP 20.2 Willow Glenn, SP Crossing. Interlocking.

Home signals 225 feet east and west of Crossing. No approach signals.

All trains must come to STOP at home signals, and a member of crew go to Crossing and carefully follow instructions pasted inside of derail lock box at Crossing before proceeding over Crossing.

MP 22.3 West San Jose, SP Crossing. No interlocking.

Protected by Stop Boards. All trains, locomotives and cars shall come to a STOP before proceeding across this Crossing and shall not thereafter proceed until it has been ascertained that no trains, locomotives or cars are approaching from either direction upon the conflicting route within a distance and at a speed which will in any way render them liable to conflict with the movement about to be made over the Crossing.

Southern Pacific Company shall have precedence in the use of the Crossing.

YARD OPERATIONS

OAKLAND — BETWEEN CLINTON AND EAST SWITCHING LIMIT

STOCKTON — BETWEEN WEST AND EAST SWITCHING LIMITS

SACRAMENTO — BETWEEN WEST AND EAST SWITCHING LIMITS

OROVILLE — BETWEEN WEST AND EAST SWITCHING LIMITS

(A) RULE 547. Will apply within above limits, with work authority limited to not more than four blocks at any one time. Engine foreman must obtain authority from train dispatcher whenever switching is to be done in a block or blocks and, when switching is completed, engine foreman personally must release block or blocks to the train dispatcher.

When initially entering a block at a switch where there is no signal or electric lock, permission must be obtained from the train dispatcher and three minutes must elapse after switch is opened before engine or cars foul main track.

A yard engine may be granted work authority including a block in which a train is standing (provided such train has not been granted block work authority) for the purpose of switching such train. When such authority is granted signal indication is not required for entrance to the block nor must three minutes elapse after opening switch not protected by signal or electric lock to enter the block provided train to be switched can be seen stopped in the block. If it becomes necessary to switch such train from both ends or for a second engine to enter the same block on end of train opposite the end on which train is to be worked, to perform other work, both engines may be granted authority to work in the same block. Under such arrangements a portion of the train must be left at all times in the block originally occupied and after switching is completed the work authority will be considered cancelled.

(B) Certain switches within above limits are not electrically-locked or signalled. Switch crews using such switches within a block under work authority may leave and return to the main track with-

out additional authority from the train dispatcher provided they have left a car or cars on main track or main track switch open with a man in charge.

If main track has been cleared and switches restored to normal position new authorization must be obtained from the train dispatcher before returning to the main track.

(C) Engine foreman must notify train dispatcher when leaving or intending to leave main track at an intermediate switch except when working under work authority. A block must not be released to the train dispatcher in advance when work authority has been granted but blocks must be released promptly when switching has been completed or specified time has expired in order to avoid delay to trains.

OAKLAND

(a) Block limits are as follows:
Clinton, MP 7.7 to absolute signal MP 8.8
Absolute signals MP 8.8 to MP 9.9
Absolute signal MP 9.9 to west switch Kohler
West switch Kohler to east switch Kohler
East switch Kohler to absolute signal MP 13.7.

(b) Train dispatcher must be notified when yard engines intend to enter T.C.S. on main track at Clinton and thereafter signal indications will govern.

STOCKTON

(a) Block limits are as follows:
East switch Wyche to MP 90
MP 90 to MP 90.85
MP 90.85 to west switch Diner Siding
West switch Diner Siding to east switch Diner Siding
East switch Diner Siding to AT&SF Crossing
AT&SF Crossing to Weber Avenue Crossing
Weber Avenue Crossing to west switch Flora Street
West switch Flora Street to east switch Flora Street
East switch Flora Street to North Channel Line
North Channel Line to west switch Hammer Lane.

(b) Work authority is not required for straight moves to or from SP Transfer or through other switches protected by electric locks.

(c) Main track and inside crossover switches at west end of train yard, MP 90.85, are dual-control. When either switch is placed in hand-throw position the other switch is disconnected from power operation and it is then unnecessary to place it in hand-throw position.

Dwarf signals governing movement on No. 1 lead track over inside switch of power-operated crossover MP 90.85, are absolute signals controlled by the train dispatcher. When these signals display aspect per Rule 288, movement may be made over this switch without placing it in hand-throw position.

These signals may be set to display STOP per Rule 292 by the train dispatcher at any time. If these signals display STOP indication per Rule 292 and reason is not apparent or if call light is lighted on signal house north of main track, contact train dispatcher promptly by telephone.

SACRAMENTO

(a) Block limits are as follows:
East switch Pollock to west switch South Sacramento
West switch South Sacramento to east switch South Sacramento
East switch South Sacramento to absolute signal SN-CCT Crossing X Street
Absolute signal SN-CCT Crossing X Street to absolute signal SP Crossing R Street
Absolute signal SP Crossing R Street to absolute signal west switch Haggin
Absolute signal west switch Haggin to absolute signal east switch Haggin
Absolute signal east switch Haggin to absolute signal Globe.

(b) Flashing red aspect displayed by indicator on signal mast in front of yard office South Sacramento authorizes switching movements between absolute signals at east and west ends of train yard without contacting train dispatcher. All movements so authorized must be made at yard speed. It will not be necessary to wait three minutes before entering main track after opening non-locked switches in this block when flashing red aspect is displayed on the indicator.

When the flashing red aspect is extinguished it will terminate the authority and main track must be cleared as promptly as possible. If unable to clear the main track within five minutes, the train dispatcher must be contacted.

(c) Flashing red aspect displayed by indicator on instrument house in vicinity of east train yard is authority to place power switches at east end of train yard in hand-throw position and to make switching movements in block between eastward absolute signals east switch South Sacramento and eastward absolute signal "X" Street. All movements so authorized must be made at yard speed.

When flashing red aspect is extinguished it will terminate switching authority and main track must be cleared promptly and power switches returned to motor position. If unable to clear main track within five minutes, the train dispatcher must be contacted.

Power switch to be used must be placed in hand-throw position before passing absolute signals and must be restored to motor position immediately when switching movements are completed.

(d) In connection with the power-operated derail at east end of No. 1 track, South Sacramento, it is permissible for a yard engine to make an eastward move over it by signal indication, then, without reaching main track, move westward without placing the derail in hand-throw position. However, if there are a series of such moves the derail must be placed in hand-throw position to avoid hazard of train dispatcher changing lineup during the switching operations.

(e) At South Sacramento authority to place power switches at east end in hand-throw position will carry with it authority to switch in the block between east switch South Sacramento and eastward absolute signal at "X" Street and at west end authority to switch in the block between west switch South Sacramento and Pollock, as well as between east and west switches South Sacramento. This means that two yard engines may be granted authority to switch over power switches at each end of South Sacramento at the same time but, only the yard engine which has specific authority from the train dispatcher to do so may use the main track block between east and west switches. The foregoing not in conflict with instructions in paragraphs (b) and (c).

It will not be necessary for train dispatcher to record switching authority in connection with permission to use these power switches except when authority includes the main track block between east and west switches.

(f) An engine foreman may permit road crews to use his switching authority for moves, such as engine to or from train, etc., or other switch crews crossing over, but must insure that there is no hazard by reason of his own switching operations. Train dispatcher may not issue switching authority (including operation of power switches in hand-throw position) to more than one person at a time (except to switch both ends of a train).

OROVILLE

(a) **RULE 547.** Train dispatcher may grant permission to different engines in different parts of the same block to operate a dual-control switch by hand or use the main track for switching and will not be required to protect work limits by absolute signals in each direction or apply red tags to the signal levers. However, he must not grant such permission if a train or engine is moving by signal indication in the block toward point where work is to be done or is closely approaching such block.

(b) Switch to house track, Oroville, operates derails on east end of house track and east end of team track simultaneously.

(c) **Oroville Yard.** Yard track indicators located opposite absolute signals governing movements of eastward or westward freight trains into yard will indicate to trains or engines the number of the track on which they are to yard their trains.

When indicator is dark yardmaster must be contacted at head-in switch to obtain track assignment unless previously received.

(d) Main track and inside crossover switches at east end of train yard, MP 203.75, are dual-control. When either switch is placed in hand-throw position the other switch is disconnected from power operation and it is then unnecessary to place it in hand-throw position.

Signals governing movement over inside dual-control switch are controlled by the train dispatcher. When these signals display aspect per Rule 288, movements may be made over this switch without placing it in hand-throw position. If signals display STOP aspect per Rule 292 and reason is not apparent or if call light is lighted on adjacent telephone booth, train dispatcher must be contacted promptly.

(e) East drill track switch is located just west of Mitchell Ave. crossing. Switch is electrically-locked.

Ehman Spur switch leading from east drill track is located 379 feet west of east drill track switch and when in normal position it is lined for Ehman Spur, also electrically-locked and serves as derail.

Electric locks on both these switches work simultaneously but switches are not pipe-connected to one another and must be hand operated separately.

SACRAMENTO NORTHERN CREWS

Eastward SN trains and engines at Haggin must contact train dispatcher for instructions to move Haggin to Globe. It will not be necessary to obtain similar instructions at SN-WP connection at Sankey for movement beyond if leaving signal on SN displays a proceed aspect.

When westward SN trains or engines at Marysville have contacted train dispatcher for instructions to move Marysville to SN-WP connection at MP 175.63 or Sankey, it will not be necessary to obtain similar instructions at Globe for movement beyond, except to obtain permission to operate electric lock.

SANKEY

Eastward absolute signal on Sacramento Northern is a two-unit signal.

Upper unit governs movements to Western Pacific main track.

Lower unit governs movements on Sacramento Northern main track.

Western Pacific Operating Rules **509** and **546** apply.

MARYSVILLE

(a) All switches for entrance to WP main track are governed by absolute signals or electric locks. Movements of SN trains or yard engines will be made by signal indication or by permission of the WP train dispatcher. Western Pacific Rules will apply.

(b) **RULE 547.** Governs switching operations. Block limits are:

Absolute signal at SN Connection MP 175.63 to west siding switch Marysville.

West siding switch Marysville to east siding switch Marysville.

East siding switch Marysville to west siding switch Tambo.

Engine foreman must obtain authority from train dispatcher whenever switching is to be done in a block or blocks and, when switching is completed, engine foreman personally must release block or blocks to the train dispatcher.

A yard engine may be granted work authority including a block in which a train is standing (provided such train has not been granted block work authority) for the purpose of switching such train.

Work authority is not required for straight moves across WP main track through switches protected by electric locks.

(c) Instructions for operating electric locks are posted in telephone booths adjacent thereto.

Permission must be obtained from train dispatcher before electric locks can be released and he must be notified after movement is completed and electric lock has been locked.

(d) Switch point derail on California Packing Corp. Spur 172 feet west of main track switch at MP 179.2.

OPERATION OF TRAINS AND ENGINES BETWEEN EAST AND WEST TRAIN YARD SWITCHES PORTOLA

(A) When signal aspect per Rule 288 is displayed by automatic signals between east train yard switch, MP 322.13, and west train yard switch, MP 320.25, authorizes yard switching or engine movements on the main track within these limits and is an indication the electrically-locked switches within these limits have been unlocked by the train dispatcher. Complete instructions for operation of electrically-locked switches are posted in telephone box located vicinity of switches.

(B) The absence of signal aspect per Rule 288, or its removal, is an indication that the train dispatcher desires the main track cleared for through train movements. Howlers controlled by the train dispatcher are located throughout the yard, and when operated the main track must be cleared immediately.

(C) In addition, train dispatchers will furnish information to operator as to times passenger trains are expected to reach Portola. Employes in charge of yard engines, light engines, and similar moves must ascertain from operator whether these trains are due before occupying main track and not delay them.

(D) When main track is used on authority of signal aspect per Rule 288, all movements must be made at yard speed.

(E) When a westward train or engine is stopped at absolute signal at east train yard switch, MP 322.13, or an eastward train or engine is stopped at absolute signal at west train yard switch, MP 320.25, by a STOP indication and train or engine is instructed by the train dispatcher to proceed under flag protection per Rule 509(A) 2, it must be preceded by a flagman. When next signal in advance can be seen displaying aspect per Rule 288, and intervening track to such signal can be seen to be clear, train or engine may pick up flagman and proceed at yard speed.

(F) Eastward absolute signals at west train yard switch are under electrically-coordinated joint control of train dispatchers for the Third Subdivision, Western Division and First Subdivision, Eastern Division.

Permission to take switch or derail at west end train yard in hand-throw must be obtained from Western Division train dispatcher. Western Division train dispatcher will in turn contact Eastern Division train dispatcher for his concurrence.

When west train yard switch is in hand-operated position, derailing switch, if used, must also be hand-operated.

(G) Train washer located on main track between west pocket track switch and east switch west siding.

Automatic signals 3210 and 3211 located adjacent to washer are equipped with marker lights indicating the position of washing arches.

All aspects displayed by these signals are subject to the restrictions imposed by the marker lights and the following will govern:

LUNAR: Washer clear — Movement may be made through washer not exceeding 10 MPH.

PURPLE: Washing position — Restricted clearance. All trains and engines to be washed STOP and then proceed not exceeding 2 MPH.

Lunar light must be displayed for all non-washing movements. If lunar light not displayed for non-washing movements, trains and engines must STOP, check all washing arches, see they are locked in clear, then movement may be made through washer not exceeding 10 MPH.

Employes are prohibited from riding on sides or tops of trains, cars or engines while passing through train washer in operating position.

No. 17, California Zephyr, will make station stop so that baggage car will be spotted at west end of hard-surface platform. In event it is too cold to wash train, engineer will be notified accordingly.

(H) After being authorized by clearance, trains must not leave until given permission by train dispatcher after member of crew advises him they are ready to leave, except Nos. 17 and 18 will leave when ready being governed by signal indications.

(I) Derail at west end of west siding is hand-operated independent of switch. Derail will actuate signals on main track when not in derailing position.

(J) Yard track indicators located opposite absolute signals governing movements of eastward or westward freight trains into yard will indicate to such trains the number of the track on which they are to yard their trains.

When indicator is dark yardmaster must be contacted at head-in switch to obtain track assignment.

TRACKS ON WHICH ENGINE MOVEMENTS RESTRICTED

Location and Description of Track	Class of Engine	Prohibited
Radum	All	Beyond frog on all tracks except 1 and 2.
Carbona Branch Spur MP 0.5	All	Beyond frog.
Stockton N. Channel Line*	All Road	Beyond frog.
Terminous Branch	All, except one unit	On entire branch.
East Arboga, Outfit Spur	All	Beyond 300 feet from frog.
Marysville Old SN freight Connections	All	Beyond frog.
Cliff House Spur	All	Beyond frog.
Oroville Ehman Spur	All, except one unit	Beyond restricting sign.
Land See special instructions pages 14 and 15, under Third Subdivision.		
Belden, House Spur	All	Beyond MP 260.
Rich Bar, Outfit Spur	All	Beyond clearance point.
Keddie West Leg of Wye	All	Beyond frog from Fourth Subdivision.
Westwood Standard Oil Spur**	All	Beyond 220 feet from frog.
Poison Lake Log Loading Track	All	Beyond 1125 feet from derail.

* All yard engines, except S-50 class (501-511), must be separated from any loaded cars by at least 1 empty while handling cars over Smith Canal drawbridge, North Channel Line, Stockton.

** Necessary to have hold of at least 4 cars to switch Standard Oil spur.

SPURS AND COMMERCIAL TRACKS

MAIN LINE

STATIONS	Mile Post	How Connected	Car Capacity
ESTUDILLO	16.5	1 E	11
CARPENTER ...(P)	24.9	Both Ends	39
DECOTO	26.6	Both Ends	18
PABRICO			
Pacific States Steel	27.8	Both Ends	75
American Forge	27.8	1 E	..
EBERLY	28.9	Both Ends	20
RADUM.....(P)	43.4	Both Ends	33
RHODES and JAMIESON..(P)..	44.6	1 E	50
TREVARNO (P)			
Interchange	49.0	1 W	24
Drill track	49.16	1 W	..
LOX	50.3	1 W	30
AYALA.....(P)	70.9	1 E	6
LYOTH (P)			
U.S.Q.M. & SP Conn. (Spur leads from east end Carbona siding)	73.8	1 W	..
RHODES .....(P)	75.6	1 E	26
ARMY SUPPLY DEPOT (LATHROP).(P)	85.76	Both Ends	130
FRENCH CAMP (P)	88.35	Both Ends	29
VILLINGER.....(P)	107.8	1 W	13
LAS VINAS .....(P)	109.5	1 W	24
GLANNVALE....(P)	118.5	1 W	13
ALBERT .....(P)	127.2	1 W	9
BOMBAY.....(P)	146.6	1 E	13
VISTA ROBLES.(P)	198.8	1 E	33
ADELAIDE	202.7	1 E	..
LAND.....(P)	212.2	Both Ends	28
JARBO.....(P)	236.1	Both Ends	17
GRIZZLY.....(P)	246.1	1 E	11
ROCK CREEK..(P)	249.1	Both Ends	18
DALITE.....(P)	256.8	1 W	12
GRAY'S FLAT..(P)	272.6	1 W	74

FOURTH SUBDIVISION

STATIONS	Mile Post	How Connected	Car Capacity
INDIAN CREEK..(P)	3.1	1 W	14
CHENEY	13.9	1 E	16
BOX.....(P)	15.5	1 W	34
POISON LAKE....(P)	70.4	1 W	40
LITTLE VALLEY LUMBER CO..(P)	95.4	1 W	12

YARD LIMITS

West MP		East MP
WP Mole	Oakland	7.7
BR-15.25	San Jose	BR-23.0
	Keddie (4th Subdivision)	K-0.48
K-38.25	Westwood	SP-409.45
	(2¼ miles west of Mason)	
K-111.2	Bieber	GN-86.5
	(3.1 miles east of station)	

* SWITCHING LIMITS

West MP		East MP
7.7	Oakland	13.78
28.5	Fremont	31.38
	Niles Junction (San Jose Branch)	BR-0.82
70.14	Carbona	73.05
89.34	Stockton	96.59
133.4	Sacramento	140.69
177.62	Marysville	180.24
201.44	Oroville	210.04
280.0	Keddie	282.47
319.94	Portola	323.09

* Indicated by "SL" signs.

TONNAGE RATING

Engine Number	1st Subdivision	2nd Subdivision	3rd Subdivision	4th Subdivision		San Jose Branch
				Keddie to Greenville and Almanor to Bieber	Greenville to Almanor	
Eastward						
801-805	875	1985	605	415	285	875
902-912	1825	2500	1095	835	585	1825
913-924	2275	3060	1375	1080	810	2275
501-511	1050	2645	880	600	435	2800
551-564	1450	3340	1150	790	535	3160
581-585	1450	3340	1150	790	535	3160
601-606, 701-713, 725-732, 801-D	2350	3925	1500	1175	875	3340
2001-2010	2600	4175	1750	1425	1125	3590
				Bieber to Halls Flat	Halls Flat to Keddie	
Westward						
801-805	780	1985	Descending grade No tonnage limit	350	765	880
902-912	1375	2725		755	1485	1825
913-924	1710	3400		1035	1825	2275
501-511	880	2645		530	1350	2800
551-564	1150	3340		660	1855	3160
581-585	1150	3340		660	1855	3160
601-606, 701-713, 725-732, 801-D	1715	4150		1125	2350	3340
2001-2010	1965	4400		1375	2600	3590

Ratings shown above are for one unit engine, and for actual tonnage, and based on maximum grade each subdivision.

Between points where grades are less than maximum, greater tonnage can be handled.

When units 801-A and 802-A are equipped with freight gears, they have the same tonnage rating as one unit of a 913-924 engine.

SPEED RESTRICTIONS IN MILES PER HOUR BETWEEN	1 Passenger Trains		2 Special Freight Trains		3 Other Freight Trains	
	Maximum	Restrictions	Maximum	Restrictions	Maximum	Restrictions
First Subdivision—Page 2						
Chestnut Jct. and Oak St., Oakland	15	..	15	..	15	..
Over Washington and Franklin Streets, Oakland	..	8	..	8	..	8
Oak St., Oakland and SP Crossing, MP 10.6	20	..	20	..	20	..
MP 7.2 over SP Crossing	..	10	..	10	..	10
*MP 7.7 over SP Crossing, Clinton	..	15	..	15	..	15
MP 9.5 just west 29th Ave. and MP 9.8 just east of Fruitvale Ave.	..	10	..	10	..	10
*SP Crossing MP 10.6 and East Oakland Swg. Limit	35	..	35	..	25	..
*MP 13.7 over SP Crossing	..	30	..	30	..	..
East Oakland Swg. Limit and MP 29.7	70	..	60	..	50	..
Bridge 14.55 just west of San Leandro depot and Williams St., 5 blocks east of depot	..	20	..	20	..	15
Over "A" and "B" Streets, Hayward	..	45	..	45	..	30
MP 23.93 and MP 24.31	..	50	..	45	..	35
MP 29.25 and MP 29.6 on curve	..	45	..	40	..	30
MP 29.7 and MP 39	55	..	50	..	40	..
*MP 30.3 over SP Crossing	..	30	..	25	..	20
MP 30.3 and MP 35 on curves and through Tunnel 1	..	45	..	40	..	30
MP 36.4 and MP 38.7 on curves and at SP underpass	..	50	..	45	..	35
MP 39 and MP 52	70	..	60	..	50	..
MP 39.9 and MP 40.3 on curve	..	60	..	55	..	45
City Limits, Pleasanton	..	50	..	45	..	40
*MP 42.7 and MP 42.97 SP Crossings	..	50	..	40	..	35
City Limits, Livermore	..	45	..	45	..	45
MP 49.6 and MP 50.1 on curve and at SP underpass	..	60	..	55	..	..
MP 51.5 and MP 51.9 on curve	..	60	..	55	..	..
MP 52 and MP 60.5	50	..	45	..	35	..
MP 52.3 and MP 58.2 on curves	..	45	..	40	..	..
MP 60.5 and MP 68	79	..	60	..	50	..
MP 61.8 and MP 62.1 on curve	..	60	..	55	..	45
MP 63.3 and MP 67 on curves	..	50	..	45	..	40
MP 67.3 and MP 68 on curve	..	..	..	..	..	45
MP 68 and Stockton Depot	79	..	60	..	60	..
MP 71.8 and MP 72.2 on curve	..	70	..	..	..	50
*MP 74.05 SP Crossing	..	55	..	50	..	40
MP 79.8 and East End Bridge 80.28	..	50	..	40	..	30
MP 81.8 and MP 83.4 on curve	..	70	..	..	..	50
*MP 84.45 SP Crossing	..	55	..	50	..	40
MP 88.3 and MP 89.9 on curves	..	..	..	..	..	50
MP 90.4 and MP 90.55 on curve	..	50	..	45	..	35
MP 90.55 and MP 92.4	..	..	..	50	..	40
MP 92.4 and Charter Way on curves	..	50	..	45	..	30
Charter Way and Stockton Depot, Main Track	..	20	..	20	..	20
Other Tracks	..	12	..	12	..	12

SPEED RESTRICTIONS IN MILES PER HOUR BETWEEN	1 Passenger Trains		2 Special Freight Trains		3 Other Freight Trains	
	Maximum	Restrictions	Maximum	Restrictions	Maximum	Restrictions
Second Subdivision—Page 3						
Stockton Depot and MP 122	70	..	55	..	50	..
Stockton Depot and MP 94.2, Main Track	..	20	..	20	..	20
Other Tracks	..	12	..	12	..	12
MP 94.2 and MP 95.1	..	40	..	40	..	30
*MP 95.1 over SP Crossing	..	40	..	40	..	30
MP 95.1 and MP 97.3	..	..	..	50	..	45
MP 116.07 Mokelumne River Bridge	..	45	..	40	..	35
Over Bridges 116.28 and 116.37	..	45	..	40	..	35
MP 122 and MP 133.5	55	..	40	..	35	..
MP 133.5 and MP 140.1	60	..	60	..	40	..
MP 135.95 and "C" St., Sacramento	..	15	..	15	..	15
"C" St. and MP 140.1	..	20	..	20	..	20
MP 140.1 and MP 197	70	..	60	..	50	..
MP 140.1 and MP 142	..	..	..	..	..	45
MP 178 and MP 179.1	..	45	..	40	..	30
*MP 180.2 SP Crossing	..	50	..	45	..	35
MP 197 and Oroville	79	..	60	..	50	..
MP 201.7 and MP 201.9 on curve	..	45	..	40	..	35
MP 202 and MP 202.5 on curve	..	70	..	..	..	..
MP 204.7 and MP 205.1 on curve	..	50	..	45	..	35
Third Subdivision—Page 4						
NEW LINE						
Oroville and MP 232.2	40	..	35	..	35	..
OLD LINE						
Oroville and East Switch Bloomer	50	..	40	..	40	..
MP 207.1 and MP 207.55	..	30	..	30	..	25
MP 208.6 and MP 209.27	..	40	..	..	..	30
MP 211.4 and MP 216.2	..	40	..	..	..	35
MP 216.2 and MP 216.75	..	35	..	35	..	30
East Switch Bloomer and MP 232.2	35	..	30	..	30	..
MP 218.08 and MP 223.18	..	30	..	..	..	25
MP 230.2 and MP 232.2	..	30	..	..	..	25
MP 232.2 and MP 273.5	35	..	30	..	30	..
MP 232.2 and MP 238.9	..	30	..	..	..	25
MP 244.2 and MP 244.94	..	30	..	..	..	25
MP 248.6 and MP 252.57	..	30	..	..	..	25
Over Bridge 252.6	..	25	..	20	..	20
MP 252.65 and MP 271.5	..	30	..	..	..	25
MP 273.5 and MP 275.3	40	..	30	..	30	..
MP 275.3 and MP 282.9	30	..	25	..	25	..
MP 282.9 and Portola	45	..	35	..	30	..
MP 282.9 and MP 283.76	..	35	..	..	..	..
MP 286.04 and MP 287.05	..	35	..	..	..	..
MP 287.05 and MP 287.65	..	40	..	..	..	..
MP 288.94 and MP 291.85	..	40	..	..	..	..
MP 291.85 and MP 294	..	35	..	..	..	..
MP 294 and MP 295.1	..	35	..	..	..	25
MP 295.1 and MP 296.15	..	40	..	..	..	..
MP 298.53 and MP 299.75	..	30	..	30	..	25
MP 300.82 and MP 300.97	..	35	..	..	..	..
MP 304 and MP 305.17	..	35	..	..	..	..
MP 306.11 and MP 307.25	..	40	..	..	..	..
MP 310.7 and MP 314.25	..	40	..	..	..	..
MP 314.25 and MP 314.35	..	35	..	..	..	..
MP 316.1 and MP 316.98	..	35	..	30	..	25

*All trains approaching interlocked crossings must reduce to speeds shown above before engine passes home signal.

Between Chestnut Jct. and Oroville, passenger trains handling conventional equipment will not exceed speeds shown under column 2, Special Freight Trains.

SPEED RESTRICTIONS IN MILES PER HOUR BETWEEN	1 Passenger Trains		2 Freight Trains	
	Maximum	Restrictions	Maximum	Restrictions
Fourth Subdivision—Page 5				
Keddie and Moccasin	35	..	25	..
Moccasin and West switch Greenville	40	..	40	..
West switch Greenville and MP 17	35	..	35	..
West switch Greenville and MP 17 westward trains	..	..	..	25
MP 17 and Clear Creek Jct.	35	..	25	..
Clear Creek Jct. and Mason	35	..	30	..
Clear Creek Jct. and Westwood, on curves	..	25	..	25
Mason and Halls Flat	45	..	45	..
Halls Flat and Pit River	35	..	25	..
Halls Flat and Pit River, on curves	..	25	..	..
Pit River and Bieber	40	..	30	..
San Jose Branch—Page 6				
Niles Jct. and MP 7.5	35	..	35	..
MP 0.0 and MP 0.3	..	15	..	15
MP 7.5 and MP 10.5	30	..	25	..
MP 10.5 and city lmts. San Jose MP 15.7	20	..	20	..
MP 15.7 and MP 23 within city limits, San Jose	12	..	12	..
Carbona Branch—Page 6	12	..	12	
Terminous Branch—Page 6				
Terminous Jct. and MP 3	20	..	20	..
MP 3 and Terminous	15	..	15	..

On curves speed will be reduced below the maximums or restrictions provided where necessary, on all Subdivisions, to insure safety.

Light engines must not exceed speeds as shown in column 3 on First, Second and Third Subdivisions and column 2 on Fourth Subdivision and Branches.

SPEED RESTRICTIONS FOR ENGINES: Maximum speed in miles per hour shown below is subject to further restrictions applicable to certain territories as shown in Speed Restrictions for Trains:

Class		Engine Maximum Speed
D-176	(801-805)*	79
D-225	(902-912)	65
D-239	(913-924)	65
S-50	(501-503)	45
S-50	(504-511)	35
S-57	(551-564)	35
S-57	(559-564 in multiple)	30
S-60	(581-585)	65
S-62	(601-606)	30
RS-62	(701-713 and 725-732)	65
D-62	(801D)	65
RS-64	(2001-2010)	65

*Units 801A and 802A are equipped with freight gears, Maximum speed 65 MPH.

OTHER MAXIMUM SPEEDS	Maximum MPH
When engineer is operating D-176, D-225 and D-239 class engines from other than leading control cab in direction of movement	20
On curves and where track conditions are unfavorable, and when approaching highway or street crossings at grade, speed of engines running backward must be further reduced to a rate consistent with safety.	
Through turnouts, crossovers, on sidings and on all inside tracks* (except on "Other Tracks" between Charter Way and MP 95 and except as provided in following paragraph)	10
*On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.	
Through turnouts with power-operated switches in reverse position—	
Kohler to Wyche inclusive, except east leg of wye switch, Niles Junction.	
Westward trains leaving Stockton Yard, after receiving signal from rear to indicate rear end has passed Tidewater Southern Jct.,	
Hammer Lane, Phillips, Del Paso to Craig inclusive, Kramm, Elsey, James,	
and through sidings at the stations and within the limits listed above	20
Passenger trains with 400 series caboose may make authorized passenger train speeds.	
All trains with other series cabooses	60
Trains handling steam derrick No. 37—straight track	35
On curves 5 MPH less than speed prescribed in column 3, First, Second and Third Subdivisions, and in column 2, Fourth Subdivision and Branches but not exceeding	30
Trains handling steam derricks (other than derrick No. 37), steam shovels, cranes, rotary plows or pile drivers on own wheels—	
First and Second Subdivisions	25
Third and Fourth Subdivisions	20
Trains handling logs loaded on flat cars	20
When two trains meet, either of which is handling logs, the standing train will remain standing until other train has cleared or come to a stop unless necessary to saw by.	
Maximum speed of train passing	15
Trains handling loaded air dump cars	25
Scale test cars on own wheels must be handled next to caboose and trains handling such cars will not exceed—	
Between Oakland and Portola	30
Between Keddie and Bieber	25
Branches	20
North Channel Line, Stockton	12

MISCELLANEOUS

Trains handling diesel engines dead in train must not exceed the maximum speed for such class engine.

Diesel freight engines dead in train must have automatic brake valves cut out in cabs and brake valve handles locked in running position; independent brake valve handles locked in running position (locking pins are provided for this); dead engine features cut in; all isolation switches placed in "start" position; all switches at engineer's control stand locked in "off" position and main battery switches pulled and reversers locked in neutral position in all units. Distributing valve pops must be set to 25 pounds pressure. Same procedure should be followed on passenger engines.

Diesel yard engines dead in train must have automatic brake valve cut out and handle placed in running position; distributing valve pop set to 15 pounds pressure; dead engine feature cut in; main battery switch pulled and reversers locked in neutral position.

During freezing weather engine water cooling system must be drained on any type diesel engine being towed.

Coupling snow plow ends of diesel engines to passenger equipment or to other engines is prohibited.

When the plow end of Jordan Spreaders 6, 7 or 13 are to be coupled to other cars or locomotives, an empty flat car must be placed next to plow end, to prevent damage to locomotive or equipment.

AIR BRAKE RULES

RULE 24-C. On California Zephyr trains, if motive power is changed at any intermediate station or terminal, or continuity of brake pipe is disturbed, air brake test must be made.

On No. 18 at Oroville and on No. 17 at Portola and Oroville, except when engine is to be detached, the incoming engineer, after making station stop, must make a 20 pound brake pipe reduction with the automatic brake. Release will be made by outgoing engineer upon receiving the proper signal (hand or air whistle).

On other passenger trains at points where terminal tests are made, when the continuity of the brake pipe is not disturbed, or motive power not changed, the incoming engineer, after making station stop, must apply the train brakes with a 15 pound brake pipe reduction immediately after stopping and without waiting for a signal.

The brake pipe leakage must be noted, then the reduction increased to a total of 20 pounds. The incoming engineer will notify the outgoing engineer the amount of brake pipe leakage.

Release of the train brakes will be made upon receiving the proper release signal.

RAILROAD SURGEONS

LOCATION	NAME	TITLE
San Francisco, Calif.	Dr. G. F. Cushman	Chief Surgeon
San Francisco, Calif.	Dr. C. E. Smith	Asst. Chief Surgeon
San Francisco, Calif.	Dr. Ruth Fleming	Local Surgeon
San Francisco, Calif.	Dr. R. H. Bacon	Local Surgeon
San Francisco, Calif.	Dr. F. D. Fellows	Aurist
San Francisco, Calif.	Dr. Wm. H. Spencer	Oculist
Oakland, Calif.	Dr. J. P. Evans	Local Surgeon
Oakland, Calif.	Dr. Fred Fisher	Local Surgeon
Oakland, Calif.	Dr. R. F. Westerfield	Local Surgeon
Oakland, Calif.	Dr. M. O. Kling	Local Surgeon
Oakland, Calif.	Dr. L. L. Coleman	Local Surgeon
Oakland, Calif.	Dr. Joseph R. Carlisle	Oculist
Hayward, Calif.	Dr. H. C. Crockett	Local Surgeon
Hayward, Calif.	Dr. Bruce Fisher	Local Surgeon
Fremont, Calif.	Dr. E. C. Grau	Local Surgeon
Pleasanton, Calif.	Dr. Harold J. Shanks	Local Surgeon
San Jose, Calif.	Dr. R. A. Larocca	Local Surgeon
San Jose, Calif.	Dr. W. A. Johnson	Local Surgeon
Tracy, Calif.	Dr. John C. Kimball	Local Surgeon
Tracy, Calif.	Dr. John V. Hume	Local Surgeon
Stockton, Calif.	Dr. E. G. Hermosillo	Local Surgeon
Stockton, Calif.	Dr. P. H. McHugh	Local Surgeon
Stockton, Calif.	Dr. J. B. Pope	Local Surgeon
Stockton, Calif.	Dr. H. F. Quinn	Local Surgeon
Stockton, Calif.	Dr. V. S. Solis	Local Surgeon
Stockton, Calif.	Dr. O. R. Vannucci	Local Surgeon
Stockton, Calif.	Dr. D. R. Powell	Oculist
Stockton, Calif.	Dr. Wm. H. Plageman	Oculist
Lodi, Calif.	Dr. W. G. Fessler	Local Surgeon
Lodi, Calif.	Dr. S. W. Leiske	Local Surgeon
Sacramento, Calif.	Dr. D. O. Kilroy	Local Surgeon
Sacramento, Calif.	Dr. P. W. Frame, Jr.	Local Surgeon
Sacramento, Calif.	Dr. A. Calkin	Local Surgeon
Sacramento, Calif.	Dr. B. A. Daley	Local Surgeon
Sacramento, Calif.	Dr. R. M. Zinky	Local Surgeon
Sacramento, Calif.	Dr. John A. Berg	Oculist
Sacramento, Calif.	Dr. R. L. Alexander	Oculist
Marysville, Calif.	Dr. P. B. Hoffman	Local Surgeon
Oroville, Calif.	Dr. Chas. Benninger, Jr.	Local Surgeon
Oroville, Calif.	Dr. C. Craviotto	Local Surgeon
Oroville, Calif.	Dr. J. E. Patrick	Local Surgeon
Oroville, Calif.	Dr. E. S. Fortner, Jr.	Local Surgeon
Oroville, Calif.	Dr. R. D. Bethel	Oculist
Quincy, Calif.	Dr. D. J. Bleiberg	Local Surgeon
Quincy, Calif.	Dr. D. H. Mansell, Jr.	Local Surgeon
Quincy, Calif.	Dr. J. F. Narkevitz	Local Surgeon
Quincy, Calif.	Dr. H. T. Unsell	Local Surgeon
Greenville, Calif.	Dr. W. C. Batson	Local Surgeon
Westwood, Calif.	Dr. H. G. Levin	Local Surgeon
Bieber, Calif.	Dr. A. O. Meier	Local Surgeon
Portola, Calif.	Dr. C. W. Brown	Division Surgeon
Portola, Calif.	Dr. W. S. Bross, Jr.	Asst. Division Surgeon

WATCH INSPECTORS

LOCATION	NAME	TITLE
San Francisco, Calif.	K. I. Dunlap	Manager of Time Service
San Francisco, Calif.	A. Solari	Watch Inspector
Oakland, Calif.	Evan J. Sawyer	Watch Inspector
Oakland, Calif.	Don J. Allphin	Watch Inspector
San Lorenzo, Calif.	Kurt J. Prosch	Watch Inspector
Fremont, Calif.	Hoyle Easley	Watch Inspector
San Jose, Calif.	Frank Scholes	Watch Inspector
Livermore, Calif.	E. Harold Witt	Watch Inspector
Stockton, Calif.	W. K. Bank & Son	Watch Inspector
Sacramento, Calif.	Tom B. Monk Co.	Watch Inspector
Marysville, Calif.	John J. Fargo	Watch Inspector
Oroville, Calif.	Philip K. Schmidt	Watch Inspector
Quincy, Calif.	E. L. Stewart	Watch Inspector

TUNNEL LOCATIONS

OAKLAND TO PORTOLA

Tunnel Number	West Portal Mile Post	East Portal Mile Post	Length Feet
1	32.12	32.94	4320.9
2	33.39	33.47	407.3
3	57.67	57.75	414.7
NEW LINE			
4	224.66	225.12	2410.0
5	227.34	227.90	2192.5
6	228.14	228.63	2583.0
7	229.54	230.38	4406.5
8	230.42	232.11	8856.3
OLD LINE			
4	207.19	207.34	811.8
5	222.98	223.15	904.3
6	224.70	224.77	345.4
7	226.34	226.42	417.9
8	226.90	226.94	226.1
9	236.37	236.48	551.8
10	237.01	237.05	231.8
11	237.33	237.37	223.8
12	237.69	237.70	51.4
13	244.92	244.96	195.9
14	246.25	246.29	244.9
15	250.10	250.69	3117.81
16	257.43	257.54	600.9
17	257.85	257.91	324.5
18	258.08	258.11	150.1
19	258.16	258.19	164.0
20	258.32	258.38	291.5
21	258.85	258.93	405.0
22	259.55	259.61	306.1
23	262.87	263.11	1257.7
24	263.89	264.01	616.1
25	265.20	265.23	186.4
26	271.58	271.66	446.0
27	278.42	278.49	364.4
28	278.96	279.06	608.6
29	279.19	279.30	587.8
30	279.55	279.65	537.5
31	280.08	280.21	687.3
32	280.37	280.48	595.2
33	283.06	283.30	1270.7
34	283.71	283.77	304.6
35	297.18	298.57	7343.7
36	316.00	316.14	762.7

KEDDIE TO BIEBER

Tunnel Number	West Portal Mile Post	East Portal Mile Post	Length Feet
1	0.00	0.12	685.9
2	0.97	1.08	588.3
3	2.61	2.73	621.0
4	3.39	3.47	470.2
5	3.71	3.76	278.7
6	21.03	21.24	1103.0

SPEED TABLE

TIME PER MILE	MILES PER HOUR
36″	100
37″	97.3
38″	94.7
39″	92.3
40″	90
41″	87.8
42″	85.7
43″	83.7
44″	81.8
45″	80
46″	78.3
47″	76.6
48″	75
49″	73.5
50″	72
51″	70.6
52″	69.2
53″	67.9
54″	66.7
55″	65.5
56″	64.3
57″	63.2
58″	62.1
59″	61
1′00″	60
1′01″	59
1′02″	58.1
1′03″	57.1
1′04″	56.2
1′05″	55.4
1′06″	54.5
1′07″	53.7
1′08″	52.9
1′09″	52.2
1′10″	51.4
1′11″	50.7
1′12″	50
1′13″	49.3
1′14″	48.6
1′15″	48
1′16″	47.4
1′17″	46.8
1′18″	46.2
1′19″	45.6
1′20″	45
1′25″	42.4
1′30″	40
1′35″	37.9
1′40″	36
1′45″	34.3
1′50″	32.7
1′55″	31.3
2′00″	30
2′15″	26.7
2′30″	24
2′45″	21.8
3′00″	20
3′30″	17.1
4′00″	15
5′00″	12
6′00″	10
7′00″	8.6
7′30″	8
8′00″	7.5
10′00″	6